In the Claims:

1. (Previously Amended) A distributed interconnect between two separate substrates comprising:

a first substrate;

a second substrate separate from said first substrate;

a first conductive transmission element formed on said first substrate, said first conductive transmission element disposed between a first and second terminal, said first conductive element having an impedance characteristic that increases from said first terminal to said second terminal;

a second conductive transmission element formed on said second substrate, said second conductive transmission element disposed between a third and fourth terminal, said second conductive element having an impedance characteristic that increases from said third terminal to said fourth terminal, said first and second conductive transmission elements being positioned in parallel alignment with respect to each other; and

a plurality of conductive interconnect elements interconnecting said first and second transmission elements, said plurality of interconnect elements distributed along said first and second transmission elements and at least interconnecting said first terminal to said fourth terminal and interconnecting said second terminal to said third terminal; and

a first and second port, said first port connected to said first terminal and said second port connected to said third terminal.

2. (Original) The distributed interconnect according to claim 1, wherein said plurality of conductive interconnect elements includes at least one interconnect element evenly distributed between said first and second terminal and evenly distributed between said third and fourth terminal.

3. (Previously Amended) The distributed interconnect according to claim 1, wherein the impedance characteristic of said first and second conductive elements increases in linear manner.

4. (Original) The distributed interconnect according to claim 1, said plurality of conductive interconnect elements positioned normal to said first and second transmission elements and in parallel with each other.

5. (Original) The distributed interconnect according to claim 4, said plurality of conductive interconnect elements evenly spaced from each other.

6. (Previously Amended) The distributed interconnect according to claim 1, said first conductive transmission element comprising a first metal trace disposed along a first edge of said first substrate, and said second conductive transmission element comprising a second metal trace disposed along a second edge of said second substrate, said first edges and second edges laterally positioned next to each other forming a parallel gap therebetween.

7. (Original) The distributed interconnect according to claim 6, said plurality of conductive interconnect elements comprising equally spaced bondwires spanning the gap in a laterally parallel and equally space configuration.

8. (Previously Amended) The distributed interconnect according to claim 6, said first and second traces having a tapered shape having no steps.

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18. (Previously Amended) A method for interconnecting electrical components between two separate substrates which minimizes coupling inductance and increases bandwidth, the method comprising:

disposing a first conductive transmission element between a first and second terminal on a first substrate, the first conductive element having an impedance characteristic that increases from the first terminal to the second terminal,

disposing a second conductive transmission element between a third and fourth terminal on a second substrate, the second conductive element having an impedance characteristic that increases from said third terminal to the fourth terminal, and

positioning the first and second conductive elements in parallel alignment with respect to each other;

interconnecting a plurality of conductive interconnect elements between the first and second transmission elements by,

distributing the plurality of interconnect elements along the first and second transmission elements,

at least interconnecting the first terminal to the fourth terminal, and

at least interconnecting the second terminal to the to the third terminal; and

electrically connecting a first port to the first terminal, and

electrically connecting a second port to the third terminal.

19. (Previously Amended) The method according to claim 18, further comprising evenly distributing the plurality of conductive interconnect elements between the first and second terminal and between the third and fourth terminal.

20. (Previously Amended) The method according to claim 18, further comprising increasing the impedance characteristic of the first and second conductive elements in linear manner.

21. (Previously Amended) The method according to claim 18, further comprising positioning the plurality of conductive interconnect elements normal to the first and second transmission elements and in a lateral and parallel orientation with respect to each other.

22. (Previously Amended) The method according to claim 20, further comprising,

forming the first conductive transmission element from a first metal trace,

disposing the first metal trace on a first surface and along a first edge of the first substrate,

forming the second conductive transmission element from a second metal trace,

disposing the second metal trace on a second surface and along a second edge of the second substrate, and

positioning the first edges and second edges laterally next to each other to form a parallel gap therebetween.

23. (Original) The method according to claim 22, further comprising utilizing equally spaced bondwires spanning the parallel gap as the plurality of conductive interconnect elements.

24. (Previously Amended) The method according to claim 22, further comprising providing first and second traces which have a tapered shape having no steps.

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34. (Previously Presented) A distributed interconnect between two separate substrates comprising:

a first conductive transmission element formed from a first tapered trace disposed on a first substrate, said first trace having at least a first and second terminal and having an impedance characteristic that linearly increases from said first terminal to said second terminal;

a second conductive transmission element formed from a second tapered trace disposed on a second substrate, said second trace having at least a third and fourth terminal and having an impedance characteristic that linearly increases from said third terminal to said fourth terminal;

a plurality of conductive interconnect elements interconnecting said first and second transmission elements-and at least interconnecting said first terminal to said fourth terminal and said second terminal to said third terminal; and

a first and second I/O port for outside electrical communication, said first port in communication with said second terminal and said second port in communication with said fourth terminal.

35. (Previously Presented) The distributed interconnect according to claim 34, wherein said plurality of conductive interconnect elements are evenly spaced and distributed between said first and second terminals and evenly spaced and distributed between said third and fourth terminals.

36. (currently amended) The distributed interconnect according to claim 34, each of said first and second tapered traces comprising a base side, a tapered side having no steps which opposes said base side at an inclined angle, a long ~~short~~ side normal to said base side which connects to both said base and a most inclined end of said tapered side, said long ~~short~~ side being positioned proximate and outside one of said first or third terminals, and another portion of said first and second trace opposing said long ~~short~~ side which interconnects said base side and a most declined ~~upwardly inclined~~ end of said tapered side, said portion positioned proximate and outside of said second or fourth terminals and having a width smaller ~~greater~~ than that of said long ~~short~~ side.

37. (previously presented) The distributed interconnect according to claim 36, said plurality of conductive interconnect elements positioned normal to said base sides of said first and second tapered traces and further in lateral and parallel orientation with respect to each other.

38. (currently amended) The distributed interconnect according to claim 36, said first and second ports comprising said portions of said first and second tapered traces which oppose said short sides and which interconnects the base side and the most upwardly inclined end of said tapered side, and of which are positioned proximate and outside said first or third ~~second or fourth~~ terminals.

39. (New) The distributed interconnect according to claim 36 , said base side of said first trace disposed along a first edge of said first substrate, and said base side of said second

trace disposed along a second edge of said second substrate, said first and second edges laterally positioned next to each other forming a generally parallel gap therebetween.

40. (Previously Presented) The distributed interconnect according to claim 34, said plurality of conductive interconnect elements comprising equally spaced bondwires spanning the gap in a lateral and parallel orientation with respect to each other.

41. (Previously Presented) A method for interconnecting electrical components between two substrates which minimizes coupling inductance and increases bandwidth, the method comprising:

disposing a first conductive transmission element formed from a first tapered trace on a first substrate, the first trace having at least a first and second terminal and having an impedance characteristic that increases linearly from the first terminal to the second terminal;

disposing a second conductive transmission element formed from a second tapered trace on a second substrate, the second trace having at least a third and fourth terminal and having an impedance characteristic that increases linearly from the third terminal to the fourth terminal;

interconnecting a plurality of conductive interconnect elements between the first and second transmission elements by, evenly spacing and distributing the plurality of interconnect elements between the first and second terminals and between the third and fourth terminals, at least interconnecting the first terminal to the fourth terminal, and at least interconnecting the second terminal to the to the third terminal;

providing a first I/O port for outside electrical communication positioned proximate and outside the second terminal; and

providing a second I/O port for outside electrical communication positioned proximate and outside the fourth terminal.

42. (currently amended) The method according to claim 41, each of the first and second tapered traces comprising a base side, a tapered side having no steps which opposes the base side at an inclined angle, a long ~~short~~ side normal to the base side which connects to both of the base and tapered sidesides, the long ~~short~~ side being positioned proximate and outside one of the first or third terminals, and another portion of said first and second trace

opposing the long ~~short~~ side which interconnects the base side and a most declined ~~upwardly inclined~~ end of said tapered side, the portion positioned proximate and outside the second or fourth terminals and having a width smaller ~~greater~~ than that of the long ~~short~~ side.

43. (Previously Presented) The method according to claim 42, further comprising positioning the plurality of conductive interconnect elements normal to the base sides of the first and second tapered traces and in a lateral and parallel orientation with respect to each other.

44. (Previously Presented) The method according to claim 42, further comprising,

disposing the base side of the first trace along a first edge of the first substrate;

disposing the base side of the second trace along a second edge of the second substrate; and

positioning the first and second edges laterally next to each other to form a parallel gap therebetween.

45. (Previously Presented) The method according to claim 22, further comprising utilizing equally spaced bondwires spanning the parallel gap as the plurality of conductive interconnect elements.